

Listing of Claims:

1. (Cancelled)
2. (Cancelled)
3. (Currently Amended) ~~The method of claim 1,~~ A method for determining a characteristic of a first object in a package of multiple objects, the method comprising the steps of:
creating a lineogram from a CT scan of the package;
determining a first position in the lineogram wherein the first object is substantially separated from other objects; and
determining a characteristic of the first object from data at the position;
wherein the step of determining a first position includes the steps of:
determining a mass for each position in the lineogram;
determining a clutter index for positions in the lineogram; and
selecting the first position based upon the clutter index.
4. (Currently Amended) The method of claim 23, wherein the step of selecting the first position includes the steps of:
comparing the clutter index for each position with a predetermined threshold value; and
selecting the first position such that the clutter index is less than the predetermined threshold value.
5. (Cancelled)
6. (Currently Amended) ~~The method of claim 1 further comprising the steps of:~~ A method for determining a characteristic of a first object in a package of multiple objects, the method comprising the steps of:
creating a lineogram from a CT scan of the package;
determining a first position in the lineogram wherein the first object is substantially separated from other objects;

determining a characteristic of the first object from data at the position;
determining a center of gravity of the first object;
determining a sine wave through the center of gravity of the first object
modifying data in the lineogram such that data relating to the first object based upon the sine wave; and
reconstructing voxels relating to an area of the package about the first object using the modified data.

7. (Cancelled)

8. (Currently Amended) ~~The method of claim 7,~~ A method for scanning a bag to locate potential threats comprising the steps of:

performing a CT scan of the bag;
creating a lineogram from the CT scan of the bag;
selecting positions in the lineogram wherein objects are substantially separated from other objects;
determining a characteristic of objects from data at the selected positions; and
determining whether a threat exists based upon the characteristics of the objects;
wherein the step of selecting positions includes the steps of:
determining a mass for each position in the lineogram;
determining a clutter index for positions in the lineogram; and
selecting positions in the lineogram wherein the clutter index is less than a predetermined threshold.

9. (Currently Amended) ~~The method of claim 7 further comprising the steps of:~~ A method for scanning a bag to locate potential threats comprising the steps of:

performing a CT scan of the bag;
creating a lineogram from the CT scan of the bag;
selecting positions in the lineogram wherein objects are substantially separated from other objects;
determining a characteristic of objects from data at the selected positions;

determining whether a threat exists based upon the characteristics of the objects;
determining a center of gravity of a first object having a characteristic of a threat;
determining a sine wave through the center of gravity of the first object
modifying data in the lineogram such that data relating to the first object based upon the
sine wave;
reconstructing voxels relating to an area of the package about the first object using the
modified data; and
determining whether a threat exists based upon the reconstructed voxels.

10. (Cancelled)

11. (Cancelled)

12. (Cancelled)

13. (Cancelled)

14. (Original) The method of claim 9 further comprising the step of presenting an image of
the reconstructed voxels to an operator for review.

15. (Cancelled)

16. (Cancelled)

17. (Cancelled)